INSTRUCTIONS

-J00445 REV. 2006-07-19

CHROME SWITCH HOUSING KIT

GENERAL

Kit Number

70222-96B, 70223-96B, 70228-96C

Models

For the most up-to-date model fitment information, please see the product label or www.harley-davidson.com.

See Table 1 for items contained in these kits.

A Service Manual for your vehicle is available from any Harley-Davidson dealer.

NOTE

All 2007 and later models have a Clutch Interlock Switch in the left side handlebar switch housing. Note location and orientation of clutch interlock switch before removing from switch housing.

HANDLEBAR SWITCH REMOVAL/INSTALLATION

⚠WARNING

The rider's safety depends upon the correct installation of this kit. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00308a)

⚠WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

⚠WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

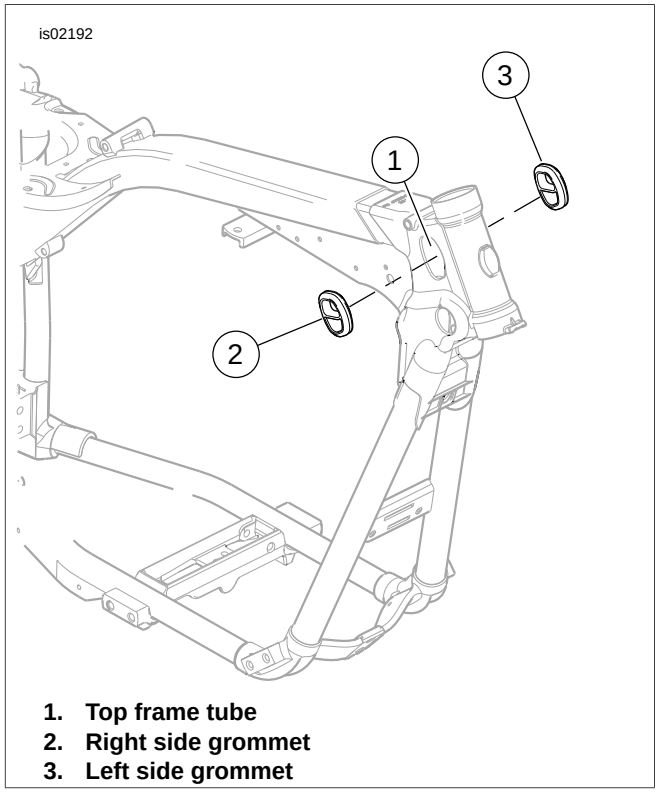
1. Disconnect the battery cables, negative (-) cable first.

FXDWGI AND FXDBI MODEL TURN SIGNAL REMOVAL

NOTE

For FXDWGI and FXDBI model motorcycles, the left and right turn signal wires are routed through the lower switch housings. It will be necessary to disconnect the wires at the harness connectors (inside top frame tube) and pull the wires out of the handlebar (FXDWGI models) and left and right switch housings. If you do not have the tools or skill to perform is procedure, it is recommended that a Harley-Davidson dealer perform this installation.

1. See Figure 1. At the top frame tube (1), remove the right (2) and left (3) side access grommet to gain access to the turn signal connectors.



1. **Top frame tube**
2. **Right side grommet**
3. **Left side grommet**

Figure 1. Top Frame Tube Access Location

2. Carefully locate the right turn signal connector and pull it out of the right side of the top frame tube access hole. Repeat for left side turn signal connector.
3. Disconnect both right and left turn signal connectors from harness. Follow procedure in the appropriate Service Manual to remove right and left turn signal wires from connectors.
4. Using a 4 foot piece of heavy duty wire or mechanics wire, wrap turn signal wires with electrical tape in preparation of pulling wires through handlebars (FXDWGI models) and lower housing.

NOTE

***Do Not** pull turn signal wires at this time. You must first follow the procedure for disassembling the right and left switch housing.*

DISCONNECT - RIGHT SIDE UPPER AND LOWER HANDLEBAR SWITCH HOUSINGS (ALL MODELS)

NOTE

Keep all keycaps, switches, brackets, and hardware for reassembly into chrome handlebar switch housings.

Place shop towels or other protection over fuel tank and fender to prevent scratches.

CAUTION

Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4 mm) thick insert between the brake lever and lever bracket. Removing or installing the master cylinder assembly without the insert in place may result in damage to the rubber boot and plunger on the front stoplight switch. (00324a)

1. See Figure 2. Place an insert (cardboard or cable strap eyelet) (1) between brake lever and lever bracket to prevent damage to rubber boot and plunger during master cylinder disassembly.
2. Using a T-27 TORX® drive head, remove two screws with flat washers securing handlebar clamp to master cylinder housing.

1. 5/32 inch (4 mm) cardboard insert

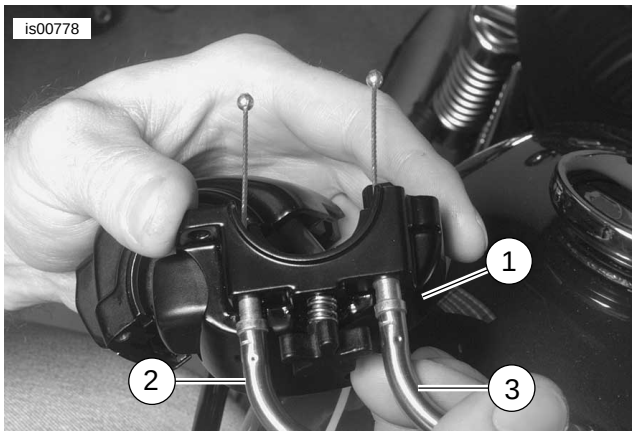
Figure 2. Brake Lever / Lever Bracket Cardboard Insert

3. Using a T-25 TORX® drive head, remove upper and lower switch housing screws.
4. Remove brake lever/master cylinder assembly and clamp from handlebar.
5. Remove friction shoe from end of tension adjuster screw on all models with adjuster.

NOTE

The friction shoe is a loose fit and may fall out or become dislodged if the lower switch housing is turned upside down or shaken.

6. Turn cable adjusters all of the way in to induce slack in cables. Unhook throttle and idle return control cable brass ferrules from notches on inboard side of throttle control grip. Remove ferrules from cable end fittings.



1. **Lower switch housing**
2. **Idle cable insert, 1/4 in dia.**
3. **Throttle cable insert, 5/16 in dia.**

Figure 3. Idle / Throttle Control Cable Connections to Switch Housing

7. Remove throttle control grip.
8. See Figure 3. Pull crimped inserts, at end of throttle (3) and idle (2) control cable housings, from lower switch housing (1). For best results, use a rocking motion while pulling. Place a drop of light oil on retaining rings, if necessary. Remove cables from switch housing.

DISASSEMBLE - RIGHT HANDLEBAR UPPER SWITCH HOUSING (ALL MODELS)

NOTE

To ease reassembly, note wire routing and placements in the switch housing before disassembly.

1. Remove Phillips screw from housing.
2. Remove switch bracket and switch assembly from housing.

NOTE

Lightly lubricate turn signal wires and electrical tape with glass cleaner to help prevent wires from binding as they are being pulled through lower housing and handlebar.

⚠WARNING

Grommets in each of the wiring holes in the handlebar must remain in position after routing the wiring through the handlebar. Operation without the grommets in place can damage wires, causing a short circuit which could result in death or serious injury. (00416d)

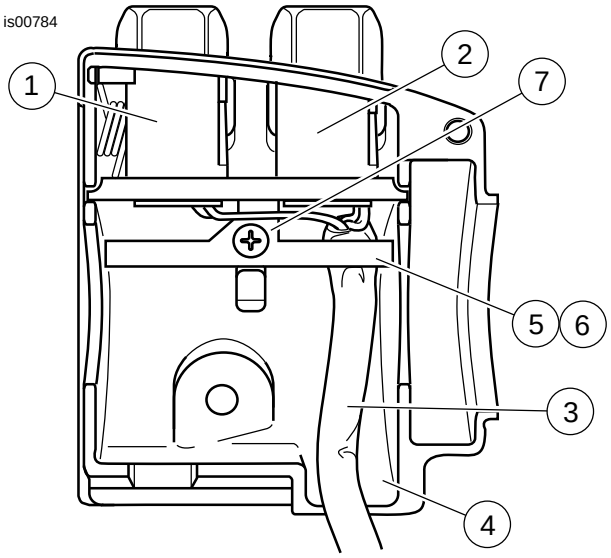
3. **FXDWGI and FXDBI MODELS:** With the switch housing removed from the handlebar, pull right turn signal wires (with heavy duty wire or mechanics wire attached) out of handlebar **(FXDWGI models)**. Pull wires out of the bottom of the lower switch housing.

REASSEMBLE - RIGHT HANDLEBAR CHROME UPPER SWITCH HOUSING (ALL MODELS)

1. See Figure 4. Place switch assembly and bracket (5) into chrome upper housing cavity. Align hole in bracket with threaded hole in boss.

Be sure bracket is fully seated. The step at edge of boss captures bottom edge of bracket, while tabs on each side of bracket fit into slots in housing.

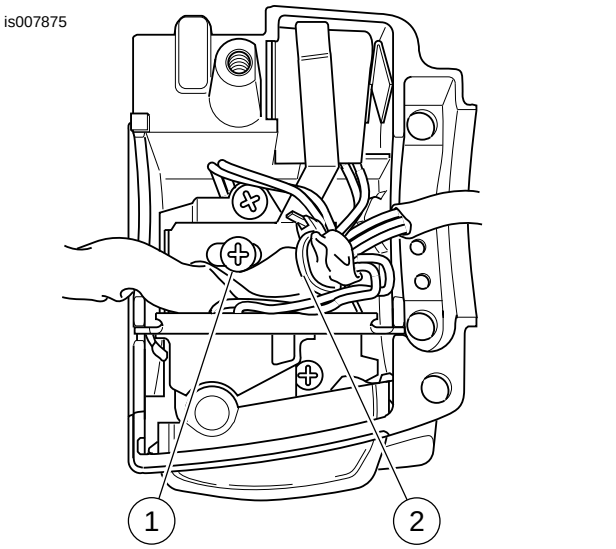
2. Install Phillips screw (7) to secure bracket inside housing. Verify that bracket wing (6) on engine stop switch side (2) captures edge of conduit (3).



1. **Start switch**
2. **Stop switch**
3. **Conduit**
4. **Channel**
5. **Bracket**
6. **Wing**
7. **Screw**

Figure 4. Upper Right Handlebar Switch Housing

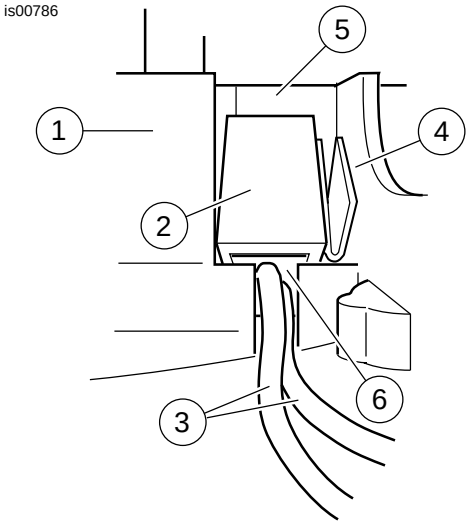
DISASSEMBLE - RIGHT HANDLEBAR LOWER SWITCH HOUSING (SPORT MODELS)



1. **Phillps screw**
2. **Cable strap (conduit to bracket)**

Figure 5. Lower RH Handlebar Switch Cable Strap

1. See Figure 5. Carefully cut the cable strap (2) holding the wire conduit to the turn signal switch bracket.
2. Remove Phillips head screw (1) near securing bracket at center of housing.
3. Lift bracket and turn signal switch from housing.



1. **Lower Switch Housing**
2. **Brake Light Switch**
3. **Switch Wires**
4. **Wedge**
5. **Cavity**
6. **Groove**

Figure 6. Brake Light Switch

4. See Figure 6. To remove the brake light switch (2) and wedge (4):
   a. Gently pry out wedge located between switch housing (1) and brake light switch (2). Save the wedge for reassembly.
   b. Gently push the brake light switch into the switch housing with thumb. Gently pull up on the brake light switch assembly while rotating and rocking it slightly.
   c. Inspect brake light switch rubber boot for damage. If necessary, replace damaged brake light switch.

REASSEMBLE - RIGHT HANDLEBAR CHROME LOWER SWITCH HOUSING

1. See Figure 6. Place brake light switch (2) and wedge (4) into chrome lower switch housing (1). Place a small bead of Silicone Sealant into the wedge.
2. Place turn signal switch assembly and bracket into housing cavity (5). Align hole in bracket with threaded hole in boss.

NOTE

Be sure bracket is fully seated. The step at edge of boss captures bottom edge of bracket, while tabs on each side of bracket fit into slots in housing.

3. Install Phillips screw to secure turn signal bracket inside housing.

DISASSEMBLE - RIGHT HANDLEBAR LOWER SWITCH HOUSING WITH RADIO

TUNING AND/OR CRUISE CONTROL SWITCHES

NOTE

To ease reassembly, note the wire runs and wire placements in the switch housing before disassembly.

1. See Figure 5. Carefully cut the cable strap (2) holding the wire conduit to the turn signal switch bracket.
2. Remove Phillips head screw (1) holding upper bracket, from housing.
3. Lift bracket and turn signal switch from housing. Turn signal keycap is not removable.

NOTE

It may be necessary to pull back vinyl conduit on harness to put slack in wires so turn signal switch and bracket can be removed.

4. See Figure 6. Remove brake light switch assembly (2):
   a. Gently pry out wedge (4) located between switch housing (1) and brake light switch (3). Save the wedge for reassembly.
   b. Gently push the brake light switch into the switch housing with thumb. Gently pull up on the brake light switch assembly while rotating it.
   c. Inspect brake light switch rubber boot for damage. If necessary, replace damaged brake light switch.

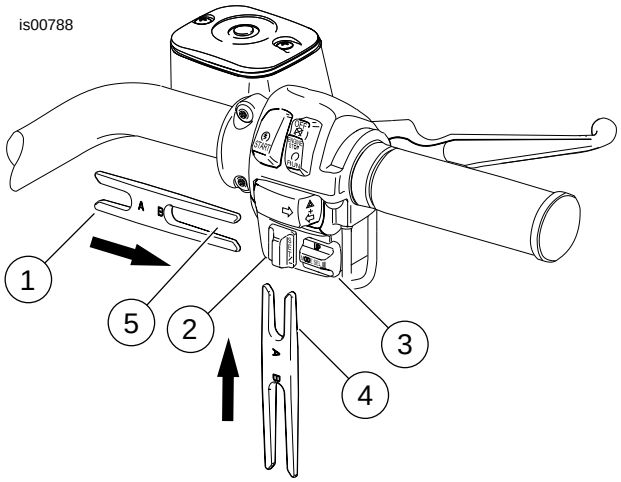
NOTE

The keycap removal tool is tapered on both ends to assist in the removal of the keycaps. As you push the tool under the keycap, the tapered ends will slowly push the keycap off of the switch pin.

NOTE

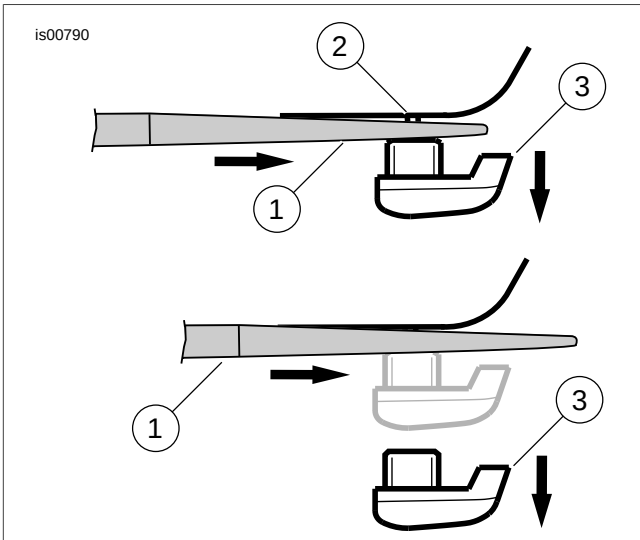
Do not use the keycap removal tool as a pry bar. This will damage the keycap and switch housing.

5. See Figure 7. To remove the cruise control keycap (2), use the short end (4) of the keycap removal tool (1). Push upwards under the keycap. The tool taper will slowly push the keycap off of the switch pin.



1. **Keycap removal tool**
2. **Cruise control switch**
3. **Mode select switch: UP/DOWN**
4. **Keycap removal tool short fork end**
5. **Keycap removal tool long fork end**

Figure 7. Right Handlebar Lower Switch Housing Keycap Removal



1. **Keycap removal tool**
2. **Switch Pin**
3. **Keycap**

Figure 8. Lower Switch Housing Keycap Removal

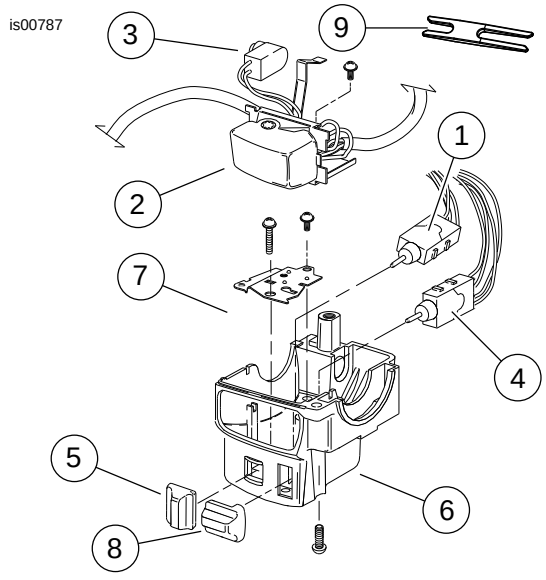
NOTE

The Cruise control keycap must be removed first before attempting to remove the Mode select keycap.

6. See Figure 8. To remove the Mode select keycap (3), use the long end (1) of the keycap removal tool. Insert the tool under the keycap and push tool outward until keycap is disengaged from the switch pin (2).
7. Remove two screws holding lower bracket to boss in housing. Pull bracket from switch housing.
8. Mark or note the positions (top, right, left) of the radio and/or cruise control switches and remove the switch assemblies.

REASSEMBLE - RIGHT HANDLEBAR CHROME LOWER SWITCH HOUSING WITH RADIO TUNING AND/OR CRUISE CONTROL SWITCHES

1. See Figure 9. Place cruise control (1) and/or radio (4) switches into chrome lower housing cavity (6). Properly installed, the switches lay in blocks cast into the lower cavity. The cruise control switch lays on edge and operates in a horizontal position. Verify that the switch shaft is aligned for proper keycap operation.
2. Place the lower bracket (7) into the housing (weld nut side down). On Ultra models, lower step of bracket should be positioned over cruise control switch (1) (horizontally oriented). Slots in upper step engage two tabs on body of radio control switch (4).
3. Install longer screw into front of lower bracket (7) and into threaded boss in housing.
4. Place shorter screw through rear of lower bracket and into threaded boss in housing.



1. **Cruise control switch**
2. **Turn signal switch**
3. **Brake light switch**
4. **Radio tuning switch**
5. **Cruise switch keycap**
6. **Lower housing cavity**
7. **Lower bracket**
8. **Radio switch keycap**
9. **Keycap removal tool**

Figure 9. Right Handlebar Lower Switch Housing

5. See Figure 6. Re-install brake light switch (2) and wedge (4):

   Carefully depress plunger against inside wall of switch housing. With thumb over plunger bore, move switch into the installed position in the switch housing cavity (5). When plunger is positioned against thumb, slowly rotate switch downward while rocking slightly. Release the plunger only after switch is properly positioned in the cavity.

   Verify that the plunger is square in the bore and that the boot is not compressed, collapsed, or torn. If necessary, gently work the plunger in and out until boot is fully extended.

   Push down on switch so that it bottoms against housing and wires run in groove (6) at base of cavity. With the concave side facing outward, insert wedge between switch and outboard side of switch housing.

   Push wedge down until it bottoms against housing. Verify that the plunger is still square in the bore and then place a drop of Silicone Sealant on upper corner of wedge.

6. To connect the upper bracket to the housing:

   See Figure 5. Insert the tapered end of a **new** 7 inch cable strap into the rear, right side, round hole in turn signal switch bracket. Feed the strap back through the front, right side, hole. The oblong hole is for the bracket screw.

   Place turn signal switch into chrome housing. Align the oblong hole in the bracket with the threaded hole in the lower bracket weld nut. Be sure the bracket is fully seated. Tabs on each side of bracket are captured in slots cast into switch housing.

⚠WARNING

Wiring in the switch housings must be routed exactly as shown. Pinch points in the switch housings can short-circuit or sever wires, which could cause loss of control resulting in death or serious injury. (00415b)

7. Start upper bracket Phillips screw into housing. If routed incorrectly, wires may be pinched by casting or handlebar, resulting in switch failure.
8. Tighten Phillips screw.
9. Capturing conduit about 1/4 inch (6.3 mm) from end, securely tighten cable strap to draw conduit to bracket. Remove any excess cable strap material.
10. Route wire bundle to upper switch housing, below and then forward of the main harness positioning conduit in channel next to angular arm of bracket.

RECONNECT - RIGHT SIDE CHROME UPPER AND LOWER SWITCH HOUSINGS (ALL MODELS)

NOTE

Lightly lubricate turn signal wires and electrical tape with glass cleaner to help prevent wires from binding as they are being pulled through lower housing and handlebar.

⚠WARNING

Grommets in each of the wiring holes in the handlebar must remain in position after routing the wiring through the handlebar. Operation without the grommets in place can damage wires, causing a short circuit which could result in death or serious injury. (00416d)

1. **FXDWGI and FXDBI MODELS:** Feed right side turn signal wires (with fish wire attached) through the right side chrome lower switch housing hole at bottom of housing. For **FXDWGI** models, feed turn signal wires into handlebar opening. Continue feeding wires through handlebar and out the center hole opening. Feed wires through down and into top frame tube.

2. Remove fish wire from turn signal wires. Insert wires into right turn signal connector. Refer to appropriate Service Manual for electrical connections procedure.

3. See Figure 3. Connect throttle (3) and idle (2) control cables to the lower switch housing (1):

   Push throttle and idle control cables into lower switch housing until they snap in place.

   Push larger diameter (5/16 inch; 7.9 mm) throttle cable into larger hole, in front of tension adjuster screw.

   Push smaller diameter (1/4 inch; 6.3 mm) idle cable housing into smaller hole, at the rear of tension adjuster screw.

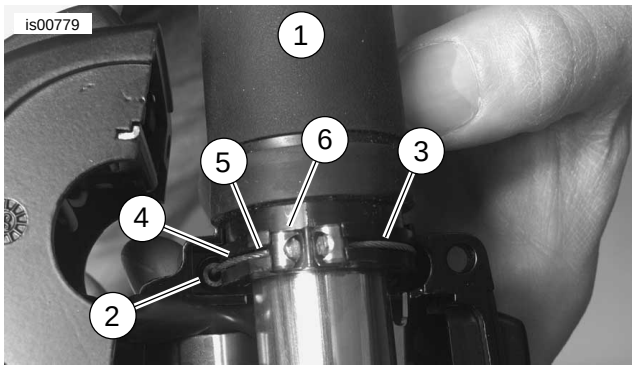
NOTE

To aid assembly, place a drop of light oil on the retaining rings of the crimped inserts. Always replace the retaining rings if damaged or distorted.

4. With lower switch housing concave side facing upward, install friction shoe so that pin hole is over point of the adjuster screw, if fitted.

NOTE

The friction shoe is a loose fit and may fall out or become dislodged if the switch housing is turned upside down or shaken.



1. **Throttle grip**
2. **Throttle cable**
3. **Idle cable**
4. **Groove**
5. **Notch**
6. **Ferrule**

Figure 10. Throttle / Idle Cable Connections in Grip

5. See Figure 10. Slide throttle control grip (1) over end of right handlebar until it bottoms against the closed end. Rotate grip so that ferrule notches (6) are at top. To prevent binding, pull the grip back about 1/8 inch (3.2 mm).

6. Position lower switch housing beneath throttle control grip. Place a brass ferrule onto throttle (2) and idle (3) cables so that end fittings seat in ferrule (6) recess. Seat ferrules in their respective notches (5) on throttle control grip (1). Verify that cables are captured in grooves (4) molded into grip.

7. Position upper switch housing over handlebar and lower switch housing.

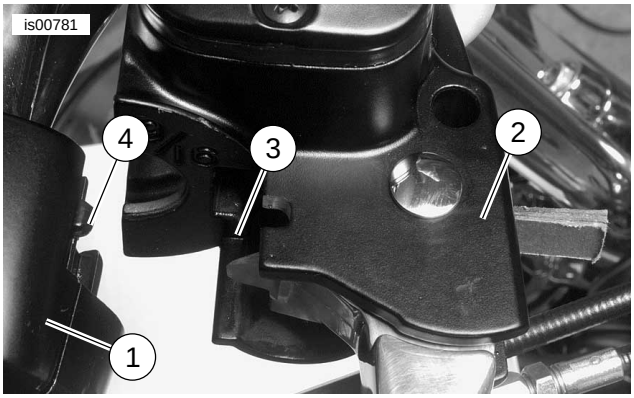
8. Verify that wire conduit is in the depression at the bottom of the handlebar.

   Be sure conduit will not be pinched under handlebar when switch housing screws are tightened.

9. Start upper and lower switch housing screws. Do not tighten.

CAUTION

Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4 mm) thick insert between the brake lever and lever bracket. Removing or installing the master cylinder assembly without the insert in place may result in damage to the rubber boot and plunger on the front stoplight switch. (00324a)



1. **Lower switch housing**
2. **Brake lever bracket**
3. **Groove**
4. **Tab**

Figure 11. Brake Lever / Master Cylinder fit to Right Handlebar Lower Switch Housing

10. See Figure 11. Position brake lever/master cylinder assembly inboard of the switch housing assembly.

    Engage the tab on lower switch housing in groove at top of brake lever bracket.

11. Align holes in handlebar clamp with holes in master cylinder housing. Start the two screws (with flat washers). Position this assembly for rider comfort.

    Beginning with the top screw, tighten screws to 60-80 **in-lbs** (6.8-9.0 Nm) using a T-27 TORX® drive head.

12. Using a T-25 TORX® drive head, tighten lower and upper switch housing screws to 35-45 **in-lbs** (3.9-5.5 Nm).

NOTE

Always tighten the lower switch housing screw first so that any gap between the upper and lower housings is at the front of the switch.

13. Remove the insert between the brake lever and lever bracket.

14. Test switches for proper operation.

15. Note lettering for proper orientation and gently push keycaps onto switch shafts.

DISCONNECT- LEFT SIDE UPPER AND LOWER HANDLEBAR SWITCH HOUSINGS (ALL MODELS)

NOTE

Keep all keycaps, switches, brackets, and hardware for reassembly into new handlebar switch housings.

1. Using a T-27 TORX® drive head, remove the two screws with flat washers securing handlebar clamp to clutch lever bracket. Remove clutch hand lever assembly and clamp from handlebar.
2. Using a T-25 TORX® drive head, remove upper and lower switch housing screws.

DISASSEMBLE - LEFT HANDLEBAR UPPER SWITCH HOUSING (ALL MODELS)

1. Remove Phillips screw.
2. Remove horn and high/low beam switch assemblies and bracket from housing.

NOTE

Lightly lubricate turn signal wires and electrical tape with glass cleaner to help prevent wires from binding as they are being pulled through handlebar.

⚠WARNING

Grommets in each of the wiring holes in the handlebar must remain in position after routing the wiring through the handlebar. Operation without the grommets in place can damage wires, causing a short circuit which could result in death or serious injury. (00416d)

3. **FXDWGI MODELS:** With the switch housing removed from the handlebar, pull left turn signal wires (with fish wire attached) out of handlebar. Pull wires out of the bottom of the lower switch housing.

REASSEMBLE - LEFT HANDLEBAR CHROME UPPER SWITCH HOUSING (ALL MODELS)

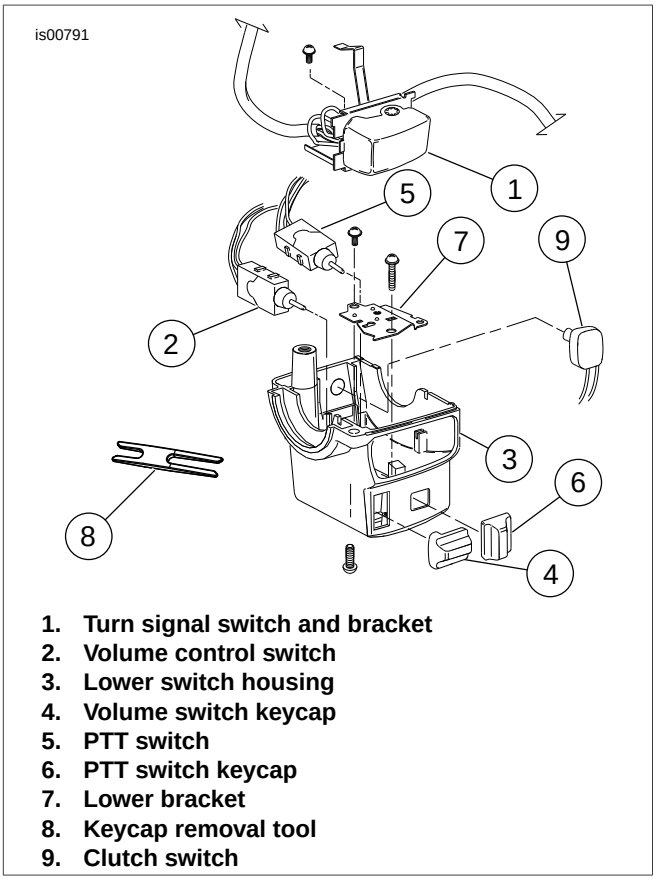
1. Place horn and high/low beam switch assemblies and bracket into chrome upper housing cavity. Align hole in bracket with threaded hole in boss.

   Be sure bracket is fully seated. The step at the edge of the boss captures the bottom edge of the bracket, while tabs on each side of the bracket fit into slots in housing.
2. Install Phillips screw to secure bracket inside housing. Verify that bracket wing on high/low beam switch side captures edge of conduit.

DISASSEMBLE - LEFT HANDLEBAR LOWER SWITCH HOUSING WITH RADIO VOLUME CONTROL SWITCH AND/OR CB PUSH-TO-TRANSMIT (PTT) SWITCH

NOTE

All 2007 and later models have a Clutch Interlock Switch in the left side handlebar switch housing. Note location and orientation of clutch interlock switch before removing from switch housing.



1. **Turn signal switch and bracket**
2. **Volume control switch**
3. **Lower switch housing**
4. **Volume switch keycap**
5. **PTT switch**
6. **PTT switch keycap**
7. **Lower bracket**
8. **Keycap removal tool**
9. **Clutch switch**

Figure 12. Ultra Models Left Handlebar Lower Switch Housing Assembly

NOTE

To ease reassembly, note the wire runs and wire placements in the switch housing before disassembly.

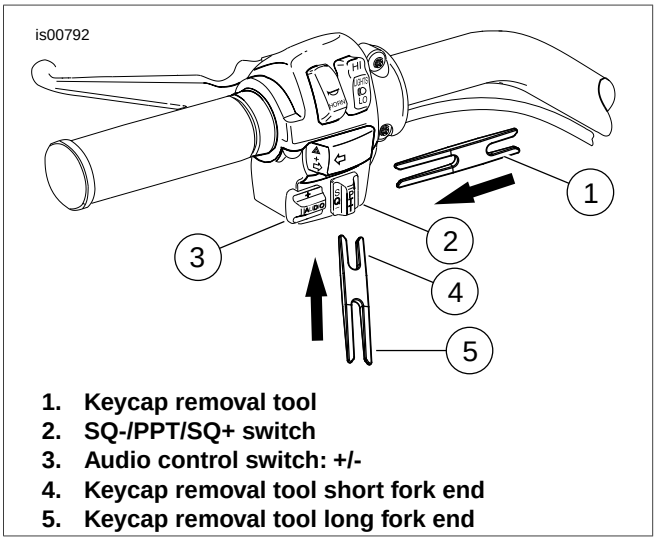
1. See Figure 12. Carefully cut the cable strap holding the wire conduit to the turn signal switch bracket (1).
2. Remove Phillips head screw, holding upper bracket, from housing (3).
3. Lift bracket and turn signal switch from housing. Turn signal keycap is not removable.

NOTE

The keycap removal tool is tapered on both ends to assist in the removal of the keycaps. As you push the tool under the keycap, the tapered ends will slowly push the keycap off of the switch pin.

NOTE

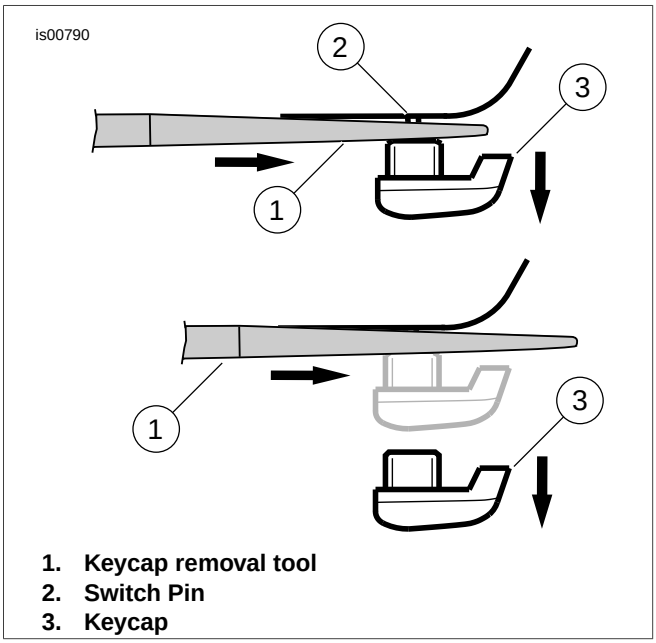
Do not use the keycap removal tool as a pry bar. This will damage the keycap and switch housing.



1. **Keycap removal tool**
2. **SQ-/PPT/SQ+ switch**
3. **Audio control switch: +/-**
4. **Keycap removal tool short fork end**
5. **Keycap removal tool long fork end**

Figure 13. Left Handelbar Lower Switch Housing Keycap Removal Tool

4. See Figure 13. To remove the SQ-/PTT/SQ+ keycap (2), use the short end (4) of the keycap removal tool (1). Push upwards under the keycap. The tool taper will slowly push the keycap off of the switch pin.



1. **Keycap removal tool**
2. **Switch Pin**
3. **Keycap**

Figure 14. Lower Switch Housing Keycap Removal

NOTE

The SQ-/PTT/SQ+ keycap must be removed first before attempting to remove the Audio control keycap.

5. See Figure 14. To remove the Audio control keycap (3), use the long end (1) of the keycap removal tool. Insert the tool under the keycap and push tool outward until keycap is disengaged from the switch pin (2).
6. See Figure 12. Remove two screws holding lower bracket (7) to boss in housing. Pull bracket from switch housing.
7. Mark or note the positions (top, right, left) of the radio (2) and/or PTT (5) switches and remove the switch assemblies.

REASSEMBLE - LEFT HANDLEBAR CHROME LOWER SWITCH HOUSING WITH RADIO VOLUME CONTROL SWITCH AND/OR CB PUSH-TO- TRANSMIT (PTT) SWITCH (CLASSIC/ULTRA MODELS)

1. See Figure 12. Place CB PTT switch (5) into chrome lower switch cavity so that it is in a horizontal position (light green wire toward clutch bracket).

   Properly installed, the switch is captured by blocks cast into lower housing (3).
2. Place radio volume control switch (2) into chrome lower switch housing cavity so it is on edge, in a vertical position.

   Properly installed, the switch is captured by blocks cast into the lower housing.

   Verify that switch shaft is aligned for proper keycap operation.
3. Place lower bracket (7) into housing (weld nut side down). On Ultra models, arrange the bracket so that lower step is positioned over PTT Switch (horizontally oriented).

   Verify that slots in upper step of bracket engage two tabs on the switch body.
4. Install longer screw to front of lower bracket to threaded boss. Install shorter rear screw. To engage threaded hole in casting, use a "through hole" in lower step of bracket on Classic models and in upper step on Ultra models.
5. Note lettering for proper orientation and gently push keycap(s) (4,6) onto switch shaft.
6. Place clutch switch (9) in same location and orientation as removed earlier.
7. See Figure 5. To install the turn signal switch assembly to the housing:

   Insert the tapered end of **new** 7 inch cable strap into the rear, right side, round hole in turn signal switch bracket and then feed it back through the front, right side, hole. The oblong hole is for the bracket screw.

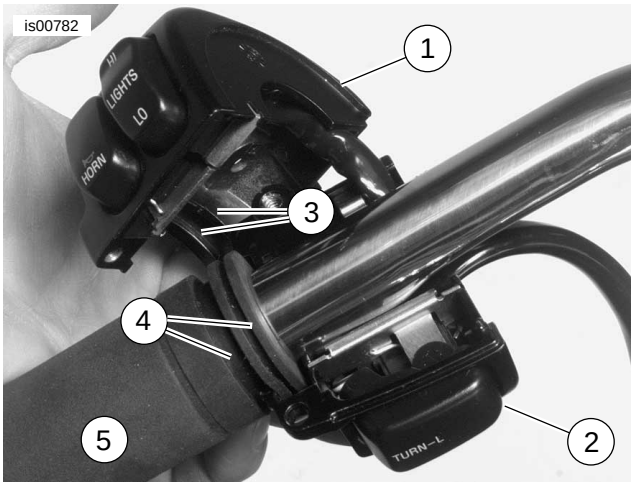
   Place turn signal switch assembly into chrome housing. Align the oblong hole in the bracket with the threaded hole in the lower bracket weld nut. Be sure the bracket is fully seated. Tabs on each side of bracket are captured in slots cast into switch housing.
8. Start upper bracket Phillips screw into housing.

⚠WARNING

Wiring in the switch housings must be routed exactly as shown. Pinch points in the switch housings can short-circuit or sever wires, which could cause loss of control resulting in death or serious injury. (00415b)

9. Tighten Phillips screw.
10. Capturing conduit about 1/4 inch (6.3 mm) from end, securely tighten cable strap to draw conduit to bracket. Remove any excess cable strap material.
11. Route wire bundle to upper switch housing, below and then forward of the main harness positioning conduit in channel next to angular arm of bracket.

RECONNECT - LEFT SIDE CHROME UPPER AND LOWER SWITCH HOUSINGS (ALL MODELS)



1. **Upper switch housing**
2. **Lower switch housing**
3. **Ribs**
4. **Grooves**
5. **Grip**

Figure 15. Left Handelbar Switch Housings

NOTE

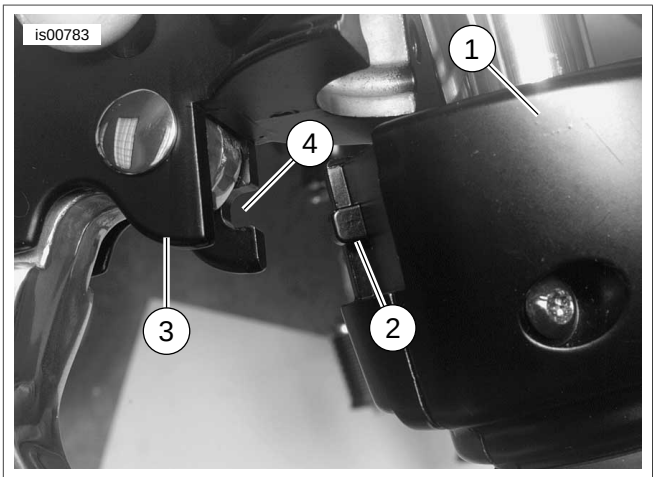
Lightly lubricate turn signal wires and electrical tape with glass cleaner to help prevent wires from binding as they are being pulled through lower housing and handlebar.

⚠WARNING

Grommets in each of the wiring holes in the handlebar must remain in position after routing the wiring through the handlebar. Operation without the grommets in place can damage wires, causing a short circuit which could result in death or serious injury. (00416d)

1. **FXDWGI and FXDBI MODELS:** Feed left side turn signal wires (with fish wire attached) through the left side chrome lower switch housing hole at bottom of housing. For **FXDWGI** models, feed turn signal wires into handlebar opening. Continue feeding wires through handlebar and out the center hole opening. Feed wires down and into top frame tube.
2. Remove fish wire from turn signal wires. Insert wires into left turn signal connector. Refer to appropriate Service Manual for electrical connections procedure.
3. See Figure 15. Place upper (1) and lower (2) switch housings on handlebar. Be sure that ribs (3) on outboard side of both switch housings fit in grooves (4) molded into grip (5).
4. Verify that wire conduit is in depression at bottom of handlebar.

   Be sure conduit will not be pinched under handlebar when switch housing screws are tightened.
5. Start upper and lower switch housing screws, but do not tighten.



1. **Lower switch housing assembly**
2. **Tab**
3. **Clutch lever bracket**
4. **Groove**

Figure 16. Clutch Lever Bracket fit to Left Handlebar Switch Housing

6. Position clutch hand lever assembly inboard of switch housing assembly.

   See Figure 16. Engage tab (2) on lower switch housing (1) with groove (4) at bottom of clutch lever bracket (3).
7. Align holes in handlebar clamp with holes in clutch lever bracket. Start the two screws (with flat washers). Position this assembly for rider comfort.
8. Beginning with top screw, tighten screws to 60-80 **in-lbs** (6.8-9.0 Nm) using a T-27 TORX® drive head.
9. Using a T-25 TORX® drive head, tighten lower and upper switch housing screws to 35-45 **in-lbs** (3.9-5.5 Nm).

NOTE

Always tighten lower switch housing screw first so that any gap between upper and lower housings is at the front of the switch.

10. Connect right and left turn signal connectors to wire harness connectors. Place both connectors inside top frame tube.
11. See Figure 1. Install the left (3) and right (2) side top frame tube grommets into top frame tube.

⚠WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

12. Connect battery cables, positive cable first.
13. Test switches for proper operation. At the same time, verify that front brake light switch functions properly. Also test left and right turn signals for proper operation.

⚠WARNING

After repairing the brake system, test brakes at low speed. If brakes are not operating properly, testing at high speeds can cause loss of control, which could result in death or serious injury. (00289a)

SERVICE PARTS

Table 1. Service Parts Table

Item	Description (Quantity)	Part Number
Kit number 70222-96B - Chrome Switch Housing, Sport Kit		
1	Housing, Chrome Switch, lower right	71719-03
2	Housing, Chrome Switch, lower left	71720-03
3	Housing, Chrome Switch, right upper	71614-96
4	Housing, Chrome Switch, left upper	71615-96
5	Cable tie (2)	10181
6	Screw, socket button head 1/4-20 x 1-1/8 in. (4)	4292
Kit number 70223-96B - Chrome Switch Housing, Classic Kit		
1	Housing, Chrome Switch, lower right	71556-96
2	Housing, Chrome Switch, lower left	71611-96A
3	Housing, Chrome Switch, right upper	71614-96
4	Housing, Chrome Switch, left upper	71615-96
5	Cable tie (2)	10181
6	Screw, socket button head 1/4-20 x 1-1/8 in. (4)	4292
7	Keycap removal tool	70226-04
Kit number 70228-96C - Chrome Switch Housing, Ultra Kit		
1	Housing, Chrome Switch, lower right	71612-96
2	Housing, Chrome Switch, lower left	71613-96B
3	Housing, Chrome Switch, right upper	71614-96
4	Housing, Chrome Switch, left upper	71615-96
5	Cable tie (2)	10181
6	Screw, socket button head 1/4-20 x 1-1/8 in. (4)	4292
7	Keycap removal tool	70226-04